

What is claimed is:

1. A terpene-free hard surface cleaning composition comprising: (a) a anionic surfactant; (b) a primary solvent comprised of a C₁-C₄ alkyl ester of a C₆-C₂₂ saturated or unsaturated carboxylic acid; (c) a short-chain cosurfactant;
5 and (d) water.
2. The composition of claim 1 wherein the anionic surfactant is selected from the group consisting of alkali metal salts of fatty acids, organic base salts of fatty acids, alkyl sulfates, alkyl ether sulfates, alkyl aromatic sulfonates, alkyl sulfonates, alpha olefin sulfonates, sulfosuccinates, and mixtures thereof.
- 10 3. The composition of claim 1 wherein the primary solvent is a methyl ester of a C₈₋₁₀ saturated carboxylic acid.
4. The composition of claim 1 wherein the primary solvent is a mixture comprised of the methyl esters of 55% C₈ and 40% C₁₀ carboxylic acids.
- 15 5. The composition of claim 1 wherein the short-chain cosurfactant is a C₃-C₆ alcohol, a glycol, a glycol ether, a pyrrolidinone and a glycol ether esters.
6. The composition of claim 5 wherein the short-chain cosurfactant is n-butyl alcohol and propylene glycol n-butyl ether.
7. The composition of claim 1 wherein the amount of the primary solvent in

the composition is from about 80% to about 95% by weight.

8. The composition of claim 1 wherein the amount of the primary solvent in the composition is from about 25% to about 60% by weight.

5 9. A terpene-free microemulsion for cleaning hard surfaces comprising: (a) from about 5% to about 10% by weight of an anionic surfactant, (b) from about 40% to about 50% by weight of a primary solvent, (c) from about 5% to about 15% by weight of a short-chain cosurfactant and (d) water wherein all weights are based on the total weight of the composition.

10 10. The microemulsion of claim 9 wherein the anionic surfactant is selected from the group consisting of alkali metal salts of fatty acids, organic base salts of fatty acids, alkyl sulfates, alkyl ether sulfates, alkyl aromatic sulfonates, alkyl sulfonates, alpha olefin sulfonates, sulfosuccinates, and mixtures thereof.

11. The microemulsion of claim 9 wherein the primary solvent is a methyl ester of a C₈₋₁₀ saturated carboxylic acid.

15 12. The microemulsion of claim 9 wherein the primary solvent is a mixture comprised of the methyl esters of 55% C₈ and 40% C₁₀ carboxylic acid.

13. The microemulsion of claim 9 wherein the short-chain cosurfactant is a C₃-C₆ alcohol, a glycol, a glycol ether, a pyrrolidone and a glycol ether esters.

14. The microemulsion of claim 13 wherein the short-chain cosurfactant is n-butyl alcohol and propylene glycol n-butyl ether.

15. The microemulsion of claim 9 wherein the amount of the primary solvent is from about 80% to about 95% by weight.

5 16. The microemulsion of claim 9 wherein the amount of the primary solvent is from about 25% to about 60% by weight.

17. The microemulsion of claim 9 further comprising a corrosion inhibitor.

18. The microemulsion of claim 17 wherein the corrosion inhibitor is selected from the group consisting of an amphoteric surfactant containing an amine functionality, an amine soap of a fatty acid, a fatty amide and combinations thereof.

19. The microemulsion of claim 17 wherein the corrosion inhibitor is an amphoteric surfactant containing an amine functionality.

20. The microemulsion of claim 18 wherein the amount of corrosion inhibitor is from about 0.05% to about 2% by weight of the total composition.

15 21. A terpene-free microemulsion for cleaning hard surfaces comprising: (a) from about 5% to about 10% by weight of an amine salt of a fatty acid or an

amine salt of a dodecyl benzene sulfonic acid, (b) from about 40% to about 50% by weight of a methyl ester of a C₈-C₁₀ saturated or unsaturated carboxylic acid, (c) from about 5% to about 15% by weight of n-butyl alcohol or propylene glycol n-butyl ether and (d) water wherein all weights are based on the total weight of

5 the composition.

22. A terpene-free microemulsion for cleaning hard surfaces which is the product of the process which comprises mixing: (a) an anionic surfactant; (b) a primary solvent comprised of a C₁-C₄ alkyl ester of a C₆-C₂₂ saturated or unsaturated carboxylic acid and; (c) a short-chain cosurfactant; and (d) water.

10 23. A terpene-free microemulsion for cleaning hard surfaces which is the product of the process which comprises mixing: (a) from about 5% to about 10% by weight of an amine salt of a fatty acid or an amine salt of a dodecyl benzene sulfonic acid, (b) from about 40% to about 50% by weight of a methyl ester of a C₈-C₁₀ saturated or unsaturated carboxylic acid, (c) from about 5% to about 15% by weight of n-butyl alcohol or propylene glycol n-butyl ether and (d) water
15 wherein all weights are based on the total weight of the composition.

24. A terpene-free hard surface cleaning composition comprised of: (a) a C₁-C₄ alkyl ester of a C₆-C₂₂ saturated or unsaturated carboxylic acid, and (b) a surfactant having an HLB of from about 4 to about 10.

20 25. The composition of claim 24 wherein the primary solvent is a methyl ester

of a C₈₋₁₀ saturated carboxylic acid.

26. The composition of claim 24 wherein the primary solvent is a mixture comprised of the methyl esters of 55% C₈ and 40% C₁₀ carboxylic acid.
27. The composition of claim 24 wherein the surfactant having an HLB of from about 4 to about 10 is the isopropyl amine salt of dodecylbenzene sulfonic acid, a linear alcohol ethoxylate, a nonyl phenol ethoxylate, a fatty amide, a fatty amine ethoxylate, a sorbitan ester, a glycerol ester or a combination thereof.
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28. A process for cleaning a hard surface which comprises contacting the hard surface with an effective amount of a composition of claim 1.
- 10 29. A process for cleaning a hard surface which comprises contacting the hard surface with an effective amount of a composition of claim 9.
30. A process for cleaning a hard surface which comprises contacting the hard surface with an effective amount of a composition of claim 21.
- 15 31. A process for cleaning a hard surface which comprises contacting the hard surface with an effective amount of a composition of claim 22.
32. A process for cleaning a hard surface which comprises contacting the hard surface with an effective amount of a composition of claim 23.

33. A process for cleaning a hard surface which comprises contacting the hard surface with an effective amount of a composition of claim 24.

34. A terpene-free microemulsion for cleaning hard surfaces comprising: (a) from about 40% to about 50% of a methyl ester of a fatty acid comprised of 55% C₈ and 40% C₁₀ carboxylic acids; (b) from about 5% to about 10% of the isopropylamine salt of a linear alkyl benzene sulfonic acid; (c) from about 1% to about 5% of sodium lauryl sulfate; (d) from about 5% to about 15% propylene glycol n-butyl ether; (e) the remainder water.

35. An article comprising a composition of claim 1 and a container.

10 36. The article of claim 35 wherein the container is a can or a bottle.

37. The article of claim 36 wherein the composition of claim 1 is further comprised of a corrosion inhibitor, a gelling agent or a combination thereof.

15 38. The article of claim 37 wherein the corrosion inhibitor is selected from the group consisting of an amphoteric surfactant containing an amine functionality, an amine soap of a fatty acid, a fatty amide and combinations thereof.

39. The article of claim 38 wherein the corrosion inhibitor is an amphoteric surfactant containing an amine functionality.

40. The article of claim 37 wherein the gelling agent is methyl cellulose or hydroxypropyl methyl cellulose.

41. An article comprising a composition of claim 34 and a container.

42. The article of claim 41 wherein the container is a can or a bottle.

5 43. The article of claim 42 wherein the composition of claim 1 is further comprised of a corrosion inhibitor, a gelling agent or a combination thereof.

44. The article of claim 43 wherein the corrosion inhibitor is selected from the group consisting of an amphoteric surfactant containing an amine functionality, an amine soap of a fatty acid, a fatty amide and combinations thereof.

10 45. The article of claim 44 wherein the corrosion inhibitor is an amphoteric surfactant containing an amine functionality.

46. The article of claim 43 wherein the gelling agent is methyl cellulose or hydroxypropyl methyl cellulose.

15 47. A process for cleaning a hard surface comprising contacting the hard surface with a terpene-free microemulsion comprising: (a) from about 40% to about 50% of a methyl ester of a fatty acid comprised of 55% C₈ and 40% C₁₀ carboxylic acids; (b) from about 5% to about 10% of the isopropylamine salt of

a linear alkyl benzene sulfonic acid; (c) from about 1% to about 5% of sodium lauryl sulfate; (d) from about 5% to about 15% propylene glycol n-butyl ether; (e) the remainder water.

48. The process of claim 47 wherein the hard surface is contacted by spraying

5 or brushing the microemulsion onto the surface.

49. The article of claim 48 wherein the composition of claim 1 is further comprised of a corrosion inhibitor, a gelling agent or a combination thereof.

50. The article of claim 49 wherein the corrosion inhibitor is selected from the group consisting of an amphoteric surfactant containing an amine functionality,

10 an amine soap of a fatty acid, a fatty amide and combinations thereof.

51. The article of claim 49 wherein the corrosion inhibitor is an amphoteric surfactant containing an amine functionality.

52. The article of claim 49 wherein the gelling agent is methyl cellulose or hydroxypropyl methyl cellulose.